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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FITZPATRICK CELLA HARPER & SCINTO			BAUM, RONALD	
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NEW YORK, NY 10112			PAPER NUMBER	
			2136	

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/054,307	CACERES ET AL.	
	Examiner	Art Unit	
	Ronald Baum	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10,13 and 20-29 is/are allowed.
- 6) ☐ Claim(s) 1-9 and 14-19 is/are rejected.
- 7) ☒ Claim(s) 11,12,18 and 25-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20060817</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1- 29 are pending for examination.
2. Claims 1- 9, 14-19 are rejected.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. The claims 7,8,10-13 rejections are withdrawn.

Claim Objections

4. Claims 18,25-29 are objected to because of the following informalities: the 35 U.S.C. 101 corrections made to claims 7,8 in the previous office action ('... "Computer code for..."', whereas computer code or software is specifically non-statutory subject matter ...) as amended in the present response, should also obviously apply to claims 18,25-29. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. The claim 22 rejection is withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1- 9, 14-19 are rejected under 35 U.S.C. 102(a) as being anticipated by Kargl, Frank, et al, "Protecting Web Servers from Distributed Denial of Service Attacks", Univ. of Ulm, 5/1/2001, entire document, <http://www10.org/cdrom/papers/409/>, ("Kargl").

7. As per claim 1; "A system for performing penetration testing of a target computer network by installing a remote agent in a target host of the target computer network, the system comprising:

a local agent

provided in a console and

configured to

receive and

execute commands [section 2.4-6, whereas the basic idea behind the distributed denial of service attacks is that the attacker compromises the first network system (i.e., see section 2.4), via performing penetration testing in order to select possible daemon program/zombie system hosts for the subsequent attack on the targeted server(s). This involves the use of installing remote agents on the first network system and subsequent "zombie" host systems which are clearly capable of receiving, and providing back resulting feedback, for the progress and status of an attack. The initiating attacker also clearly is attacking using a GUI

oriented host (i.e., the local agent with a user interface) with associated execution of the attack software and remote agents (i.e., distributed objects).];

a user interface

provided in the console and

configured to

send commands to and receive information from the local agent,

process the information, and

present the processed information [section 2.4-6];

a database

configured to store the information received from the local agent [section 2.2, 2.4-6];

a network interface

connected to the local agent and

configured to communicate via a network with

the remote agent installed in the target host of the target computer network

[section 2.4-6]; and

security vulnerability exploitation modules for

execution by

the local agent and/or

the remote agent [section 2.4-6, whereas the installation of the zombie /

daemons for the purpose of the subsequent denial of service attack clearly

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encompasses the security vulnerability exploitation; post module install/post install execution.];

wherein the remote agent comprises at least one of:

a system-calls proxy server configured to

receive and execute, in the target host, system calls received via the

network, and

a virtual machine configured to

execute, in the target host, scripting language instructions received via the

network.”.

As per claim 4, this claim is the method for the apparatus/system claim 1 above, and is rejected for the same reasons provided for the claim 1 rejection, as such; “A method for performing penetration testing of a target computer network, comprising:

installing a remote agent in a target host of

the target computer network;

executing a command using

a local agent provided in a console;

receiving information from the local agent in

a user interface provided in the console;

presenting the information received from

the local agent to a user;

storing the information received from

the local agent in a database;
communicating via a network with
the remote agent installed in the target host of the target computer network; and
providing security vulnerability exploitation modules for
execution by
the local agent and/or
the remote agent;
wherein the remote agent comprises at least one of:
a systems-call proxy server configured to
receive and execute, in the target host, system calls received via the
network, and
a virtual machine configured to
execute, in the target host, scripting language instructions received via the network.”.

As per claim 7, this claim is the embodied software for the apparatus/system claim 1 above, and is rejected for the same reasons provided for the claim 1 rejection, as such;
“Computer code for performing penetration testing of a target computer network, the computer code comprising code for:

installing a remote agent in a target host of
the target computer network;
executing a command using
a local agent provided in a console;

receiving information from the local agent in
a user interface provided in the console;
presenting the information received from
the local agent to a user;
storing the information received from
the local agent in a database;
communicating via a network with
the remote agent installed in the target host of the target computer network; and
providing security vulnerability exploitation modules for
execution by
the local agent and/or
the remote agent;
wherein the remote agent comprises at least one of:
a systems-call proxy server configured to
receive and execute, in the target host, system calls received via the
network, and
a virtual machine configured to
execute, in the target host, scripting language instructions received via the network.”.

8. Claim 2 *additionally recites* the limitation that, “The system of claim 1, wherein
the user interface enables a user to
select one of the modules and

initiate execution of the selected module on either
the local agent or
the remote agent.”.

The teachings of Kargl are directed towards such limitations (i.e., section 2.4-6, whereas the basic idea behind the distributed denial of service attacks is that the attacker compromises the first network system (i.e., see section 2.4), via performing penetration testing in order to select possible daemon program/zombie system hosts for the subsequent attack on the targeted server(s). This involves the use of installing remote agents on the first network system and subsequent “zombie” host systems which are clearly capable of receiving, and providing back resulting feedback, for the progress and status of an attack. The initiating attacker also clearly is attacking using a GUI oriented host (i.e., the local agent with a user interface) with associated execution of the attack software and remote agents (i.e., distributed objects, daemons, CGI scripts, etc.)).

As per claim 5, this claim is the method for the apparatus/system claim 2 above, and is rejected for the same reasons provided for the claim 2 rejection, as such; “The method of claim 4, further comprising:

selecting, using the user interface, one of the modules; and
initiating execution of the selected module on either
the local agent or
the remote agent.”.

As per claim 8, this claim is the embodied software for the apparatus/system claim 2 above, and is rejected for the same reasons provided for the claim 2 rejection, as such; “The computer code of claim 7, further comprising code for:

selecting, using the user interface, one of the modules; and
initiating execution of the selected module on either
the local agent or
the remote agent.”.

9. Claim 3 *additionally recites* the limitation that; “The system of claim 1, wherein the user interface provides
a graphical representation of the target computer network.”.

The teachings of Kargl are directed towards such limitations (i.e., section 2.4-6, whereas the basic idea behind the distributed denial of service attacks is that the attacker compromises the first network system (i.e., see section 2.4), via performing penetration testing in order to select possible daemon program/zombie system hosts for the subsequent attack on the targeted server(s). This involves the use of installing remote agents on the first network system and subsequent “zombie” host systems which are clearly capable of receiving, and providing back resulting feedback, for the progress and status of an attack. The initiating attacker also clearly is attacking using a GUI oriented host (i.e., the local agent with a user interface, where the section 2.4.1-2.4.5 are examples of Windows and ‘X’ (Unix) GUI’s) with associated execution of the attack software and remote agents (i.e., distributed objects, daemons, CGI scripts, etc.)).

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As per claim 6, this claim is the method for the apparatus/system claim 3 above, and is rejected for the same reasons provided for the claim 3 rejection, as such; “The method of claim 4, further comprising

providing a graphical representation of the target computer network using
the user interface.”.

As per claim 9, this claim is the embodied software for the apparatus/system claim 3 above, and is rejected for the same reasons provided for the claim 3 rejection, as such; “The computer code of claim 7, further comprising

code for providing a graphical representation of the target computer network using
the user interface.”.

10. As per claim 14; “A method for performing penetration testing of a target network, comprising the steps of:

executing a first module in a console having a user interface,
the first module being configured to

exploit a security vulnerability in

a first target host of the target network [section 2.4-6, whereas the
basic idea behind the distributed denial of service attacks is that the
attacker compromises the first network system (i.e., see section 2.4), via
performing penetration testing in order to select possible daemon
program/zombie system hosts for the subsequent attack on the targeted

server(s). This involves the use of installing remote agents on the first network system and subsequent “zombie” host systems which are clearly capable of receiving, and providing back resulting feedback, for the progress and status of an attack. The initiating attacker also clearly is attacking using a GUI oriented host (i.e., the local agent with a user interface) with associated execution of the attack software and remote agents (i.e., distributed objects). The installation of the zombie / daemons for the purpose of the subsequent denial of service attack clearly encompasses the security vulnerability exploitation; post module install/post install execution.];

installing a first remote agent in the first target host,

the first remote agent being configured to

communicate with the console and a second remote agent [section 2.4-6];

and

executing a second module in the first remote agent,

the second module being configured to

exploit a security vulnerability in

a second target host of the target network [section 2.4-6, whereas the basic idea behind the distributed denial of service attacks is that the attacker compromises the first network system (i.e., see section 2.4), via performing penetration testing in order to select possible daemon program/zombie system hosts for the subsequent attack on the targeted

server(s). This involves the use of installing remote agents on the first network system (installed software modules, objects, etc.) and subsequent “zombie” host systems which are clearly capable of receiving, and providing back resulting feedback, for the progress and status of an attack. The initiating attacker also clearly is attacking using a GUI oriented host (i.e., the local agent with a user interface) with associated execution of the attack software and remote agents (i.e., distributed objects). The installation of the zombie / daemons for the purpose of the subsequent denial of service attack clearly encompasses the security vulnerability exploitation; post module install/post install execution.];

wherein the first remote agent comprises at least one of:

a system-calls proxy server configured to

receive and execute, in the target host, system calls received via the

network, and

a virtual machine configured to

execute, in the target host, scripting language instructions received via the network.”.

As per claim 16, this claim is the apparatus/system for the method claim 14 above, and is rejected for the same reasons provided for the claim 14 rejection, as such; “A system for performing penetration testing of a target network, comprising:

a console having a user interface;

a first module configured to

execute in the console to

exploit a security vulnerability in

a first target host of the target network;

a first remote agent installed in the first target host,

the first remote agent being configured to

communicate with the console and a second remote agent; and

a second module configured to

execute in the first remote agent to

exploit a security vulnerability in

a second target host of the target network;

wherein the first remote agent comprises at least one of:

a system-calls proxy server configured to

receive and execute, in the target host, system calls received via the

network, and

a virtual machine configured to

execute, in the target host, scripting language instructions received via the network.”.

As per claim 18, this claim is the embodied software for the method claim 14 above, and is rejected for the same reasons provided for the claim 14 rejection, as such; “Computer code for performing penetration testing of a target network, the computer code comprising code for:

executing a first module in a console having a user interface,

the first module being configured to

exploit a security vulnerability in
a first target host of the target network;
installing a first remote agent in the first target host,
the first remote agent being configured to
communicate with the console and a second remote agent; and
executing a second module in the first remote agent,
the second module being configured to
exploit a security vulnerability in
a second target host of the target network;
wherein the first remote agent comprises at least one of:
a system-calls proxy server configured to
receive and execute, in the target host, system calls received via the
network, and
a virtual machine configured to
execute, in the target host, scripting language instructions received via the network.”.

11. Claim 15 *additionally recites* the limitation that; “The method of claim 14, further comprising

installing a second remote agent in the second target host of the target network,
the second remote agent being configured to
communicate with the first remote agent.”.

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The teachings of Kargl are directed towards such limitations (i.e., section 2.4-6, whereas the basic idea behind the distributed denial of service attacks is that the attacker compromises the first network system (i.e., see section 2.4), via performing penetration testing in order to select possible daemon program/zombie system hosts for the subsequent attack on the targeted server(s). This involves the use of installing remote agents (i.e., inclusive of Root Kits which inherently involve the interception of operating system calls at the kernel level) on the first network system (i.e., an execution engine encompassing routers and firewalls, clearly encompassing proxy servers, and WEB based servers; JAVA capable such that a virtual machine is inherently part of the JAVA functionality, as broadly interpreted by the examiner) and subsequent "zombie" host systems which are clearly capable of receiving, and providing back resulting feedback, for the progress and status of an attack. The initiating attacker also clearly is attacking using a GUI oriented host (i.e., the local agent with a user interface) with associated execution of the attack software and remote agents (i.e., distributed objects, daemons, CGI scripts, etc.)).

As per claim 17, this claim is the apparatus/system for the method claim 15 above, and is rejected for the same reasons provided for the claim 14 rejection, as such; "The system of claim 15, further comprising

a second remote agent installed in the second target host of the target network,

the second remote agent being configured to

communicate with the first remote agent."

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As per claim 19, this claim is the embodied software for the method claim 15 above, and is rejected for the same reasons provided for the claim 15 rejection, as such; "The computer code of claim 18, further comprising

code for installing a second remote agent in the second target host of the target network,
the second remote agent being configured to
communicate with the first remote agent."

Allowable Subject Matter

12. Claims 11,12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. Claims 10,13,20-29 are allowed over prior art, and subject to the claim objections above.

14. As per claim 10; "An agent embodied in a computer-readable medium for use in a system for performing penetration testing of a target computer network having a target host, the agent comprising:

a system-calls proxy server configured to

receive and execute system calls received via a network; and

a virtual machine configured to

execute scripting language instructions received via the network;

wherein

the system calls received via the network are routed to
the system-calls proxy server and
the scripting language instructions received via the network are routed to
the virtual machine.”.

15. Claim 11 *additionally recites* the limitation that; “The agent of claim 10, further comprising

an execution engine configured to

control

the system-calls proxy server and

the virtual machine,

wherein

the system calls and

the scripting language instructions

are routed to

the proxy server and

the virtual machine, respectively, by the execution engine.”.

16. Claim 12 *additionally recites* the limitation that; “The agent of claim 11, further comprising

a remote procedure call module configured to

receive commands from the network formatted in

a remote procedure call protocol and
pass the commands to the execution engine.”.

17. As per claim 13; “An agent embodied in a computer-readable medium for use in a system for performing penetration testing of a target computer network, having a target host, the agent comprising:

a system-calls proxy server configured to
receive and execute, in the target hosts, system calls received via a network;
a virtual machine configured in the target host, to
execute scripting language instructions received via the network;
a secure communication module configured to
provide secure communication between
the virtual machine and the network;
an execution engine configured to control
the system-calls proxy server and
the virtual machine,

wherein

the system calls and
the scripting language instructions
are routed to
the system-calls proxy server and
the virtual machine, respectively, by the execution engine;

a remote procedure call module configured to
receive commands via the network formatted in
a remote procedure call protocol and
pass the commands to the execution engine; and
a second secure communication module configured to
provide secure communication between
the remote procedure call module and the network.”.

18. As per claim 20; “A method for performing penetration testing of a target network, comprising the steps of:

executing a first module to
exploit a security vulnerability of
a first target host of the target network;
installing a first remote agent in the first target host as a result of
exploiting the security vulnerability of
the first target host;
sending a system call to
the first remote agent via a network; and
executing the system call in the first target host using
a system-calls proxy server of the first remote agent to
exploit a security vulnerability of
a second target host;

wherein the system call comprises

a computer instruction that is executed in an operating system of
the first target host.”.

As per claim 25; “Computer code for performing penetration testing of a target network,
the code comprising code for:

executing a first module to

exploit a security vulnerability of

a first target host of the target network;

installing a first remote agent in the first target host as a result of

exploiting the security vulnerability of

the first target host;

sending a system call to

the first remote agent via a network; and

executing the system call in the first target host using

a system-calls proxy server of the first remote agent to

exploit a security vulnerability of

a second target host, the system call comprising

a computer instruction that is executed in an operating
system of

the first target host.”.

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19. As per claim 21; “A method for performing penetration testing of a target network, comprising the steps of:

executing a first module to

exploit a security vulnerability of

a first target host of the target network;

installing a first remote agent in the first target host as a result of

exploiting the security vulnerability of

the first target host;

executing in the first remote agent

a second module that generates a system call; and

executing the system call in the first target host to

exploit a security vulnerability of

a second target host;

wherein the system call comprises

a computer instruction that is executed in an operating system of

the first target host.”.

As per claim 26; “Computer code for performing penetration testing of a target network, the code comprising code for:

executing a first module to

exploit a security vulnerability of

a first target host of the target network;

installing a first remote agent in the first target host as a result of
exploiting the security vulnerability of
the first target host;
executing in the first remote agent
a second module that generates a system call; and
executing the system call in the first target host to
exploit a security vulnerability of
a second target host, the system call comprises
a computer instruction that is executed in an operating system of
the first target host.”.

20. As per claim 22; “A method for performing penetration testing of a target network,
comprising the steps of:

executing a first module to
exploit a security vulnerability of
a first target host of the target network;
installing a first remote agent in the first target host as a result of
exploiting the security vulnerability of
the first target host;
executing
a second module in the first remote agent that generates a system call;
installing a second remote agent in a second target host as a result of

exploiting a security vulnerability of
the second target host;
sending the system call generated by the second module to
the second remote agent via a network; and
executing the system call in the second target host using
a system-calls proxy server of
the second remote agent,
wherein the system call comprises
a computer instruction that is executed in an operating system of
the second target host.”.

As per claim 27; “Computer code for performing penetration testing of a target network,
the code comprising code for:

executing a first module to
exploit a security vulnerability of
a first target host of the target network;
installing a first remote agent in the first target host as a result of
exploiting the security vulnerability of
the first target host;
executing
a second module in the first remote agent that generates a system call;
installing a second remote agent in the second target host as a result of

exploiting a security vulnerability of
the second target host;
sending the system call generated by the second module to
the second remote agent via a network; and
executing the system call in the second target host using
a system-calls proxy server of
the second remote agent, the system call comprises
a computer instruction that is executed in an operating system of
the second target host.”.

21. As per claim 23; “A method for performing penetration testing of a target network,
comprising the steps of:

executing a first module to
exploit a security vulnerability of
a first target host of the target network;
installing a first remote agent in the first target host as a result of
exploiting the security vulnerability of
the first target host;
installing a second remote agent in the second target host as a result of
exploiting a security vulnerability of
the second target host;
sending a system call to

the first remote agent;
sending the system call from the first remote agent to
the second remote agent; and
executing the system call in the second target host using
a system-calls proxy server of
the second remote agent,
wherein the system call comprises
a computer instruction that is executed in an operating system of
the second target host.”.

As per claim 28; “Computer code for performing penetration testing of a target network,
the code comprising code for:

executing a first module to
exploit a security vulnerability of
a first target host of the target network;
installing a first remote agent in the first target host as a result of
exploiting the security vulnerability of
the first target host;
installing a second remote agent in the second target host as a result of
exploiting a security vulnerability of
the second target host;
sending a system call to

the first remote agent;
sending the system call from the first remote agent to
the second remote agent; and
executing the system call in the second target host using
a system-calls proxy server of
the second remote agent, the system call comprising
a computer instruction that is executed in an operating system of
the second target host.”.

22. As per claim 24; “A method for performing penetration testing of a target network, comprising the steps of:

installing a first remote agent in a first target host of the target network,
the first remote agent having a system-calls proxy server configured to
receive and execute system calls;
executing in the first remote agent
a system call received via a network, the system call comprising
a computer instruction that is executed in an operating system of
the first target host;
installing a second remote agent in the first target host,
the second remote agent having
a system-calls proxy server configured to
receive and execute system calls and

a virtual machine configured to
execute scripting language instructions; and
executing in the second remote agent
a scripting language instruction or
a system call received via the network.”.

As per claim 29; “Computer code for performing penetration testing of a target network,
the code comprising code for:

installing a first remote agent in the first target host,
the first remote agent having a system-calls proxy server configured to
receive and execute system calls;
executing in the first remote agent
a system call received via a network, the system call comprising
a computer instruction that is executed in an operating system of
the first target host;

installing a second remote agent in the first target host,
the second remote agent having
a system-calls proxy server configured to
receive and execute system calls and
a virtual machine configured to
execute scripting language instructions; and
executing in the second remote agent

a scripting language instruction or
a system call received via the network.”.

Response to Amendment

23. As per applicant’s argument concerning the lack of teaching by Kargl, et al of the various aspects of the *system-calls proxy server* and *virtual machine* remote execution, the examiner has fully considered the arguments, and finds them not to be persuasive, as broadly interpreted by the examiner in the case of the *virtual machine* limitation, however the *system-calls proxy server* limitation is sufficiently patentably distinct.

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

25. Any inquiry concerning this communication or earlier communications from examiner should be directed to Ronald Baum, whose telephone number is (571) 272-3861, and whose unofficial Fax number is (571) 273-3861 and unofficial email is Ronald.baum@uspto.gov. The examiner can normally be reached Monday through Thursday from 8:00 AM to 5:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh, can be reached at (571) 272-3795. The Fax number for the organization where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. For more information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald Baum

Patent Examiner

NASSER MOAZZAMI
PRIMARY EXAMINER


8/17/06

